



June 21, 2018

The Travelers Companies  
Business Property Insurance, Major Case Unit  
One Tower Square MS06-A  
Hartford, Connecticut 06183

Attention: Mr. Paul J. Sutherland, CPU, CHFC  
[pjsuther@travelers.com](mailto:pjsuther@travelers.com)

Reference: **Industrial Hygiene Evaluation Report**  
**Day's Inn**  
304 Hemlock Street  
Gatlinburg, Tennessee 37738  
S&ME Project No. 4143-18-029 P002

Dear Mr. Sutherland:

S&ME, Inc. (S&ME) is pleased to present this report of our industrial hygiene evaluation of the Days Inn located at 304 Hemlock Street in Gatlinburg, Tennessee. This work was performed in general accordance with S&ME proposal No. 41-1800298, dated May 14, 2018 and our Agreement for Services AS-071.

## ◆ Project Information

Based on the May 10, 2018 telephone conversation between yourself and Eric Solt of S&ME and an email from you to Eric Solt on the same day, S&ME was requested to provide Travelers with industrial hygiene consulting services to support their review of a smoke damage claim for the referenced hotel. This hotel has filed a claim for smoke damage caused by wild fires in Gatlinburg in November, 2016.

As part of the industrial hygiene evaluation, Mr. Sherman Woodson, a Certified Industrial Hygienist, has reviewed the previous sampling report for the referenced hotel. Air sampling was performed at the hotel in January 2018 by Forensic Building Science, Inc. The laboratory analysis of the samples was performed by N.G. Carlson Analytical, Inc. S&ME also visited the hotel on May 22, 2018 and observed representative rooms to identify the current conditions that may be related to smoke damage.

This report includes our comments and opinions of the previous sampling report and our observations and opinions of the current conditions.



## ◆ Review of Previous Air Sampling Report

The January 13, 2018 report from Forensic Building Science is included in Attachment I. A total of twelve (12) air samples and eight (8) surface samples were collected in representative rooms (predominantly 3<sup>rd</sup> and 4<sup>th</sup> floors) in the hotel on January 3 and 4, 2018. The air samples were collected using Air-O-Cell cassettes and an air sampling pump. The surface samples were collected by pressing tape to the surface. Each of the air and surface samples were observed under light microscopy at 400X magnification. Particulates identified as either char or soot were counted and the results quantified in ranges. The ranges are correlated for the ranges of particles as "negligible impact of smoke," "limited impact," "moderate impact," "significant impact," and "major impact."

The majority of air samples had char and soot particle counts in the ranges correlated to "negligible" or "limited" with regards to "smoke impact." One location (Room 421) had a char particle count on the low end of "significant" range and one location (Room 319) with a char particle count in the "moderate" range.

Likewise, the majority of tape samples had char and soot particle counts in the ranges correlated to "negligible" or "limited" with regards to smoke impact. One location (Room 407) had a char particle count in the "major" category. It should be noted that this sample was collected from the wood burning fire place in this room.

S&ME also noted the following with regards to the report: 1) based on a review of the website, it does not appear that N.G. Carlson Analytical is an accredited laboratory, 2) there is no reference to the particle count classifications included in the report 3) it appears that the particle counts are average counts per field (not explicitly stated in the table). Therefore, the concentrations of the room samples and ambient samples cannot be compared as different air volumes were sampled, and 4) the ambient locations are described as a "storage room." This may be an unconditioned, unoccupied space but still seems like it is a potential indoor space with the same potential smoke impact as the indoor rooms. We would have preferred to have an outdoor sample for comparison to the indoor samples.

## ◆ Observations By S&ME On May 22, 2018

S&ME performed a walk-through of representative rooms of the Days Inn on May 22, 2018. In addition to S&ME, Mr. Paul Sutherland (The Travelers Companies) and Mr. Wes Bolick (Young and Associates) participated in the walk-through of the rooms.

Rooms selected for observation were either unoccupied at the time of our site visit (keys for available rooms were provided by hotel management) or were open and occupied by cleaning staff or renovation workers. S&ME observed a total of twenty-one (21) rooms at the Days Inn. In addition to the interior of the rooms, S&ME observed the exterior of the rooms including balconies. Accessible common areas on the interior and exterior were also observed during our site visit.

The rooms observed included those that had recently been renovated (new paint, flooring, bathroom counter, etc.), those undergoing renovation activities, and those that have not been recently renovated. As noted earlier, some of the rooms have fireplaces. The rooms with fireplaces also had outdoor storage rooms. Observations in to the attic spaces were made from these storage rooms. Typical room finishes included painted drywall, carpet (in rooms not renovated), and wood laminate flooring (rooms renovated).



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**Day's Inn, 304 Hemlock Street**  
Gatlinburg, Tennessee 37738  
S&ME Project No. 4143-18-029, P002

During our site visit, S&ME did not observe visible signs (soot or staining) or odors (smoke odor) to indicate fire damage. Renovation activities at the Days Inn appeared to be beneficial to freshen up the appearance of the rooms and not related to smoke damage.

## ◆ Conclusions and Opinions

As noted in the sample results, the majority of air and tape samples have particle counts in the "negligible" or "limited" range and the samples with particle counts in higher concentration ranges appear to be in rooms with fireplaces. Therefore, S&ME's opinion is that the sample results do not indicate that smoke damage related to the 2016 wild fires is present in the rooms. This opinion was confirmed by the lack of visible signs or odors related to smoke damage noted during our walk-through observations on May 22, 2018.

## ◆ Closing

S&ME appreciates the opportunity to provide our industrial hygiene services. If you have any questions or need additional assistance, please do not hesitate to call us at (865) 977-0003.

Sincerely,

**S&ME, Inc.**

Eric M. Solt  
Senior Project Manager

Sherman Woodson, CIH, CSP  
Senior Industrial Hygienist

## **Attachments**

## **Attachment I – Forensic Building Science Report**

Tom Irmriter  
 Forensic Building Science  
 657 Lincoln Ave.  
 St. Paul, MN 55105  
 Email: teirmriter@forensicbuildingscience.com  
 Phone: 651-222-6509  
 Fax: 651-528-6237

N.G. Carlson Analytical, Inc.  
 216 16th Ave. S.W.  
 New Brighton, MN 55112

January 13, 2018

RE: Days Inn 324 Hemlock St., Gatlinburg, TN 37738

Air-o-cell cassette samples (January 3, 2018 – January 4, 2018)

Location (description from chain of custody)	Trace density	Primary Particles	Notes
1 – Room 407 interior wall (30 liters)	Moderate	Char [<1] Soot [<1]	<b>Asp/Pen Heavy</b>
4 Room 405 bathroom ventilation (30 liters)	Moderate	Char [1-4] No Soot	
6 Attic space above rooms 409 – 412 CMU interior fire wall (30 liters)	Moderate	Char [1-2] Soot [<0.5]	
9 Room 412 dividing CMU (LE) wall (30 liters)	Light to Moderate	Char [1-2] No Soot	
10 Room 417 interior wall bathroom vanity (30 liters)	Light	Char [<0.5] Soot [<0.5]	<b>Asp/Pen moderate to light</b>
12 – Room 421 dividing CMU (LE) wall (30 liters)	Heavy	Char [10-20] No Soot	
13 – Room 319 dividing CMU (LE) wall (30 liters)	Heavy	Char [4-6] No Soot	

14 – Room 315 bedroom interior wall (30 liters)	Light	Char [<0.5] Soot [<0.5]	
16 – Room 302 bedroom interior wall (30 liters)	Moderate	Char [<0.5] Soot [<0.5]	
17 – Room 208 dividing CMU (RE) wall (30 liters)	Moderate	Char [2] Soot [<0.5]	
19 – Elevator shaft 4 <sup>th</sup> floor going down (30 liters)	Heavy	Char [2] Soot [<0.5]	
20 – 3 <sup>rd</sup> floor storage room ambient air (75 liters)	Moderate	Char [1] Soot [<0.5]	

Char and soot like particle interpretation:

Less than 0.5 particles per field (400x) – negligible impact of smoke

0.5 and 2.0 particles per field (400x) – limited impact of smoke

2.0 and 10 particles per field (400x) – moderate impact of smoke

10 – 50 particles per field (400x) – Significant impact of smoke

> 50 particles per field TNTC – Major impact of smoke

\* Several large clusters of soot-like particles noted

Tease tape samples (January 3, 2018 – January 4, 2018)

Location (description from chain of custody)	Trace density notes	Primary Particles	Notes
2 – Room 407 wood burning fire place – tape lift		Char [50+] No Soot	
3 – Attic space above room 403 & 404, wood joist – tape lift		Char [2-5] No Soot	

5 – Attic space above rooms 408 – 412 metal pipe - tape lift		Char [1-3] Soot [<0.5]	
7 – Attic space above rooms 418-422 wood joist – tape lift		Char [1-2] Soot [<0.5]	
8 – Attic space above rooms 418 – 422 - bulk insulation		Char [<1] No Soot	
11 – Room 421 wood burning fire place - tape lift		Char [3-7] Soot [1-2]	
15 – Room 305 dropped ceiling in bathroom metal pipe electrical chase way – tape lift		Char [<1] Soot [2-6]	
18 – Room 214 metal pipe in dropped ceiling – tape lift		Char [<1] Soot [1-2]	

Char and soot-like particle interpretation:

Less than 0.5 particles per field (400x) - negligible impact of smoke

0.5 and 2.0 particles per field (400x) - limited impact of smoke

2.0 and 10 particles per field (400x) - moderate impact of smoke

10 - 50 particles per field (400x) - Significant impact of smoke

> 50 particles per field TNTC - Major impact of smoke

\* Several large clusters of soot-like particles noted

Methods:

The Air-o-cell Cassette traces were identified under light microscopy viewed at 100x, 200x and 400x. Lacto fuchsin stain in 85% lactic acid was used to aid in identification.

No chemical identification was conducted on the soot-like, char-like particles, and carbon black-like particles. Presumptive identification was based on particle morphology.

Discussion:

Soot levels varied from not noted to moderate on the tease tape samples.  
Char levels varied from limited to major on the tease tape samples.

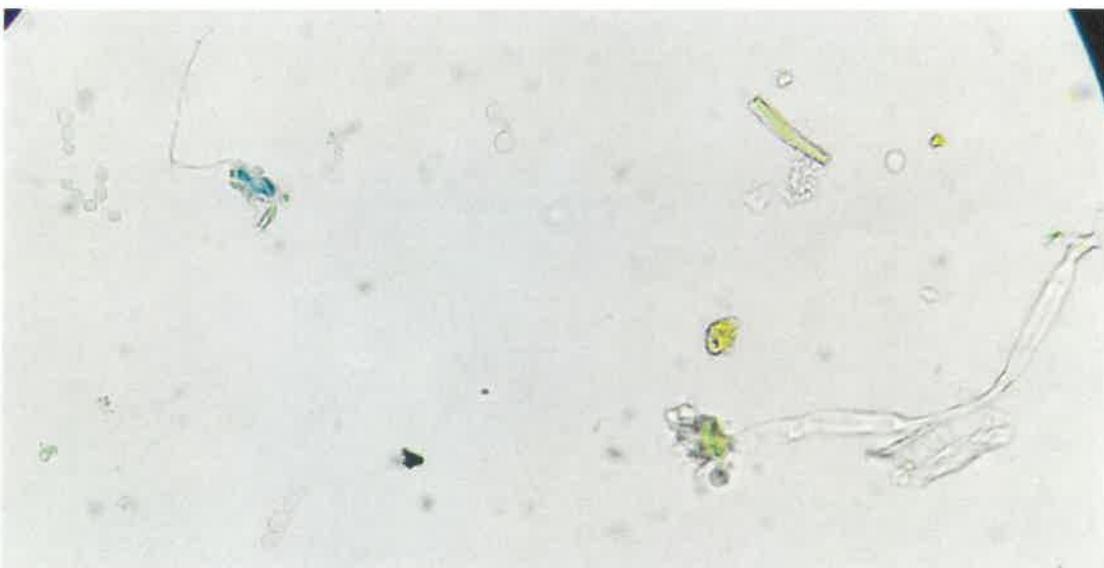
Char levels varied from negligible to significant on the air samples.  
Soot levels varied from not noted to limited on the air samples.

Sincerely,



Neil G. Carlson, C.I.H.  
N.G. Carlson Analytical, INC.  
<http://sites.google.com/site/ngcarlsonanalyticalinc/>

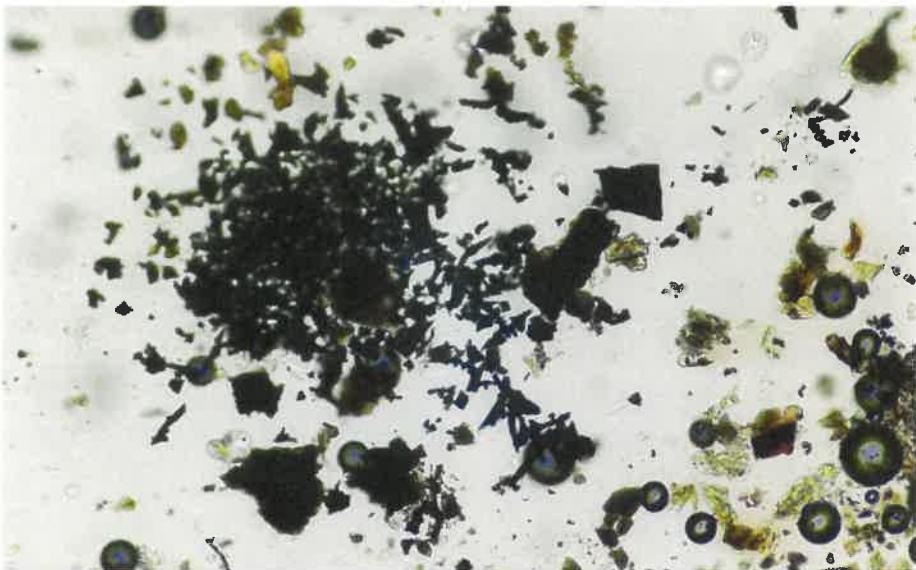
Photos:



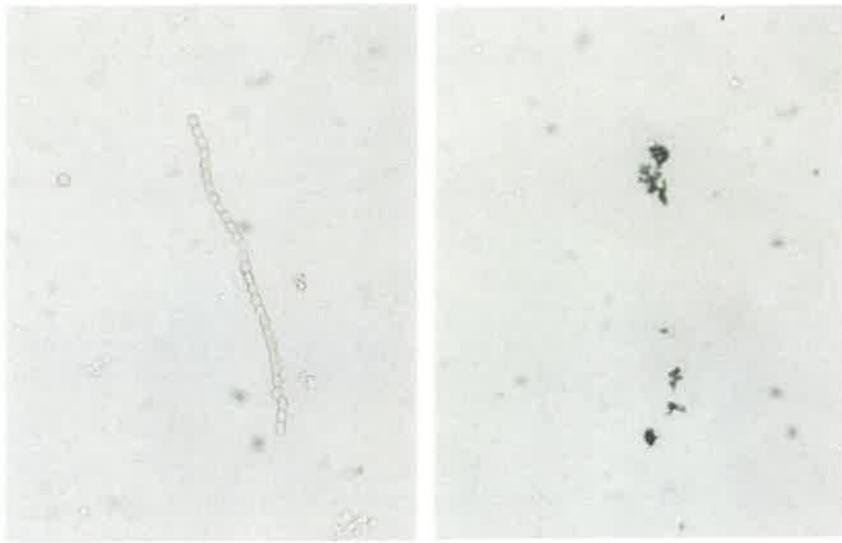
1 – Asp/Pen like spores and Aspergillus growth structure



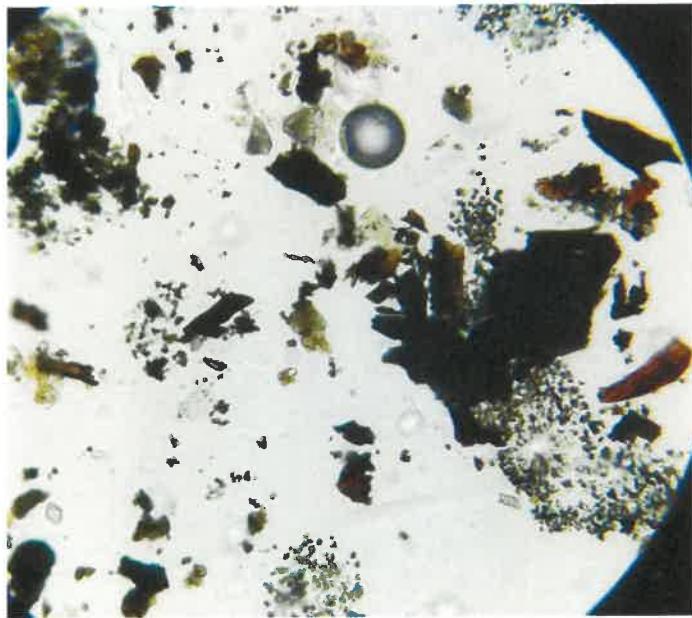
1 – Asp/Pen like spores



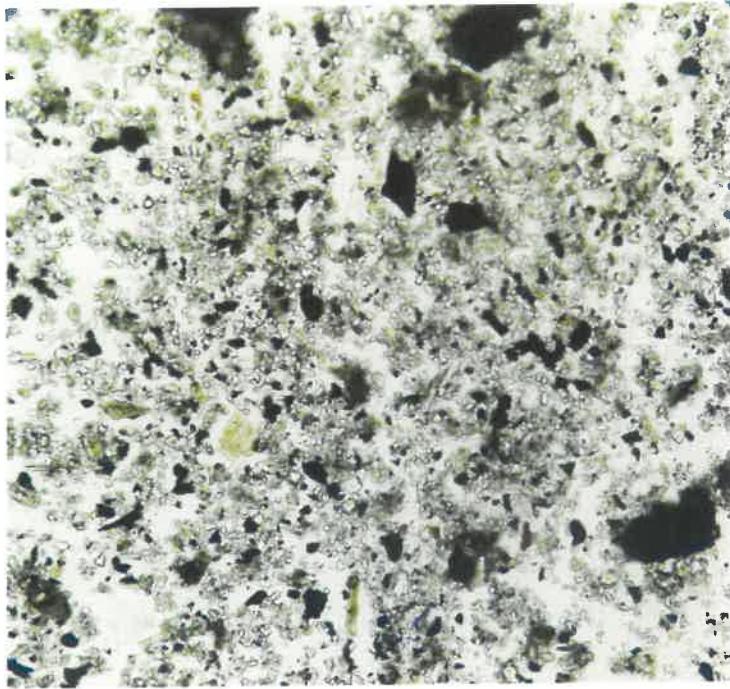
Sample #2 – char like particles



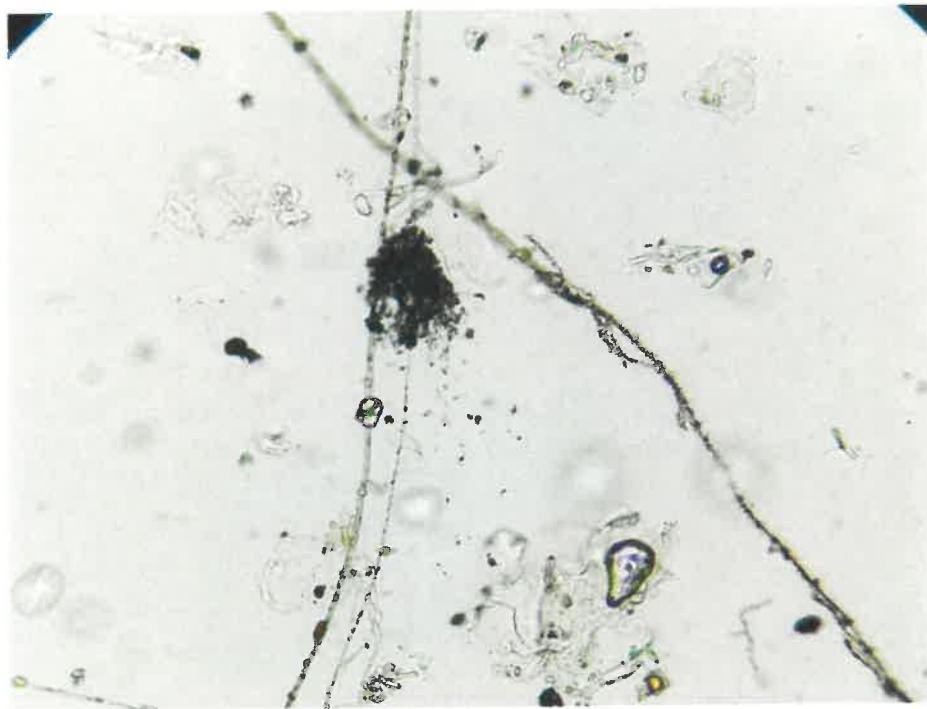
10 – Asp/pen like spores in chains    Soot-like particles



Sample #11 – char like and soot like particles



12 - air sample char -like particles



18 – soot-like particles